

**\*\*DRAFT\*\* Land Surveying Definition AELS Guidance \*\*DRAFT\*\***

The Alaska statutory definition of Land Surveying covers a broad range of activities that are performed in support of the platting and planning of land. Those activities generally include measurement, delineating, describing, subdividing and mapping. The actual statute is shown here:

AS Sec. 08.48.341

(7) “land surveyor” means a professional land surveyor;

(14) “practice of land surveying” means the teaching of land surveying courses at an institution of higher learning, or any service or work the adequate performance of which involves the application of special knowledge of the principles of mathematics, the related physical and applied sciences, and the relevant requirements of law for adequate evidence of the act of measuring and locating land, geodetic and cadastral surveys for the location and monumentation of property boundaries, for the platting and planning of land and subdivisions of land, including the topography, alignment, and grades for streets, and for the preparation and perpetuation of maps, record plats, field note records and property descriptions that represent these surveys;

The State Board of Architects, Engineers, and Land Surveyors (AELS Board) is tasked with regulating the practice of Architecture, Engineering, Land Surveying, and Landscape Architecture to ensure that the public health, safety, and welfare is not negatively impacted by these activities. The AELS Board recognizes that many of the activities regulated are highly complex and the effects of these activities may not be immediately obvious. In fact, it is often years later when problems become apparent.

AS Sec. 08.48.341 (14) attempts to define those activities in an inclusive and durable manner. The language does not discuss technology, accuracy, nor does it provide a list of products that are generated from the activity of professional land surveying. All technologies, all accuracies, and all products used/developed in the course of the described activities are included.

When performed in support of the platting or planning of land the following sample activities fall under the definition (note that this is NOT a complete list of covered activities):

- Performing topographic surveys - performed using photogrammetry, LiDAR, Structure from Motion (SfM), Global Navigation Satellite System (GNSS - which includes GPS), total station, sonar, or any other measurement method.
- Making topographic maps or contour maps or existing ground surfaces - digital or printed.
- Performing volumetric surveys - surveys used to determine volumes regardless of the measurement method (see topographic surveys).
- Mortgage/as-built surveys - these show the relationship between improvements and property boundaries.
- Using a drone (UAV/UAS) to take photos used to produce maps or other data products for the platting or planning of land.
- Taking photos to produce maps or other data products (regardless of where the camera is mounted) for the platting or planning of land.

- Collecting scan data (LiDAR) of land or improvements regardless of where the scanner is mounted for the platting or planning of land.
- Performing hydrographic surveys - measurements to determine the location of the land or improvements under the water.
- Preparing Site Plans - these may also include information that falls under the practice of engineering. Where the site plan shows both boundaries or control and civil design, the sheet must be sealed by both the land surveyor and engineer in responsible charge for their respective work.
- Preparing Survey Control Sheets - maps showing survey control to be used to place improvements.
- Publishing GIS webpages showing property lines overlaid on an aerial image.
- Establishing the elevation of a building.
- Producing elevation information for a Federal Emergency Management Agency (FEMA) Elevation certificate.
- Writing a metes and bounds legal description.
- Preparing a map showing easements or property boundaries.
- Preparing a map/plan showing the proposed improvements (limits of excavation, luminaires, storm drain improvements, etc.) and the property/right-of-way lines. Where a plan shows both boundaries or control and civil design, the sheet must be sealed by both the land surveyor and engineer in responsible charge for their respective work.
- Determining right-of-way impacts for proposed improvements.
- Creating parcel maps/exhibits for the acquisition of land.
- Creating a shore fisheries plat.
- Locating the position of wetland limits (as marked by a wetlands scientist or other qualified professional).
- Using a GNSS/GPS device to control the operation of grading machinery (machine control) for land development (buildings, parking lots, roads, etc.).

When performed where the products are used for the platting and planning of land, these activities fall under the definition of land surveying and must be performed by, or under the direct supervision of, a land surveyor licensed to practice in Alaska.

For the purposes of the statute and the mission of the AELS Board:

- The platting of land is making maps or plans of land describing the land and its features. This does not include generalized maps made to orient end users, e.g. road maps, maps showing the general location of features (such as a map for park users), maps showing the location of exits in a building.
- The planning of land is the development of drawings, documents, and models defining proposed land use, land configuration, and improvements for a specific parcel of land.

## Possible Guidance Manual Content

### “Industrial Exemption” for boundary surveys.

Exemptions 08.48.331 (a) (10), full text below<sup>1</sup>, is often referred to as an Industrial Exemption. This exemption is limited to practice “involved in the operation of the employer’s business only”.

The statute 08.48.331 (a) (10) provides business’ the opportunity to have unlicensed staff perform in-house work when these actions don’t impact anyone other than the business. One example is when public utilities perform professional engineering work on their own plant/facilities and no others are impacted. This exemption does not apply to surveys that delineate the boundaries of land rights. There is no land rights ownership delineation scenario that only impacts the operation of the employer’s business<sup>2</sup> so the exemption does not apply.

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<sup>1</sup> 08.48.331 (a) (10) an officer or employee of an individual, firm, partnership, association, utility, corporation, limited liability company, or limited liability partnership, who practices engineering, architecture, land surveying, or landscape architecture involved in the operation of the employer's business only, and further provided that neither the employee nor the employer offers engineering, architecture, land surveying, or landscape architecture services to the public; exclusions under this paragraph do not apply to buildings or structures whose primary use is public occupancy

<sup>2</sup> No business owns all land rights associated with a parcel of land. Land ownership is possession of the majority of the rights associated with that particular parcel of land. A common analogy is to think of about a parcel’s land rights as a bundle of sticks – each stick represents a right: such as the right to occupy the property and the right to improve the property. The full bundle of rights are never wholly owned by any one entity. Often public utilities own the rights to construct and maintain utility lines on a portion of the property.

The location of the boundaries of land rights also serves to define the limits of the construction of permanent structures (that limit being lot/parcel boundaries or easements and setbacks offset from the legal lot/parcel boundary). If permanent structures/improvements are built into setbacks, easements, or across lot/parcel boundaries, this would cause harm to the easement user (utility company) that now must work around the structure, or to future owners of the property (or adjoining) who are now burdened with the problem.